NAME

aue — ADMtek AN986 Pegasus USB Ethernet driver

SYNOPSIS

To compile this driver into the kernel, place the following lines in your kernel configuration file:

```
device uhci
device ohci
device usb
device miibus
device aue
```

Alternatively, to load the driver as a module at boot time, place the following line in `loader.conf`(5):

```
if_aue_load="YES"
```

DESCRIPTION

The **aue** driver provides support for USB Ethernet adapters based on the ADMtek AN986 Pegasus chipset.

The LinkSys USB10T adapters that contain the AN986 Pegasus chipset will operate at 100Base-TX and full-duplex.

The Pegasus contains a 10/100 Ethernet MAC with MII interface and is designed to work with both Ethernet and HomePNA transceivers. Although designed to interface with 100Mbps peripherals, the existing USB standard specifies a maximum transfer speed of 12Mbps. Users should therefore not expect to actually achieve 100Mbps speeds with these devices.

The Pegasus supports a 64-bit multicast hash table, single perfect filter entry for the station address and promiscuous mode. Packets are received and transmitted over separate USB bulk transfer endpoints.

The **aue** driver supports the following media types:

autoselect	Enable autoselection of the media type and options. The user can manually override the autoselected mode by adding media options to the `/etc/rc.conf` file.
10baseT/UTP	Set 10Mbps operation. The *`mediaopt`* option can also be used to enable *`full-duplex`* operation. Not specifying *`full duplex`* implies *`half-duplex`* mode.
100baseTX	Set 100Mbps (Fast Ethernet) operation. The *`mediaopt`* option can also be used to enable *`full-duplex`* operation. Not specifying *`full duplex`* implies *`half-duplex`* mode.

The **aue** driver supports the following media options:

full-duplex	Force full duplex operation. The interface will operate in half duplex mode if this media option is not specified.

For more information on configuring this device, see `ifconfig`(8).

HARDWARE

Adapters supported by the **aue** driver include:

- Abocom UFE1000, DSB650TX_NA
- Accton USB320-EC, SpeedStream

- ADMtek AN986, AN8511
- Billionton USB100, USB100LP, USB100EL, USBE100
- Corega Ether FEther USB-T, FEther USB-TX, FEther USB-TXS
- D-Link DSB-650, DSB-650TX, DSB-650TX-PNA
- Elecom LD-USBL/TX
- Elsa Microlink USB2Ethernet
- HP hn210e
- I-O Data USB ETTX
- Kingston KNU101TX
- LinkSys USB10T adapters that contain the AN986 Pegasus chipset, USB10TA, USB10TX, USB100TX, USB100H1
- MELCO LUA-TX, LUA2-TX
- Netgear FA101
- Planex UE-200TX
- Sandberg USB to Network Link (model number 133-06)
- Siemens Speedstream
- SmartBridges smartNIC
- SMC 2202USB
- SOHOware NUB100

DIAGNOSTICS

aue%d: watchdog timeout A packet was queued for transmission and a transmit command was issued, however the device failed to acknowledge the transmission before a timeout expired.

aue%d: no memory for rx list The driver failed to allocate an mbuf for the receiver ring.

SEE ALSO

`altq`(4), `arp`(4), `miibus`(4), `netintro`(4), `ng_ether`(4), `ifconfig`(8)

ADMtek AN986 data sheet, http://www.admtek.com.tw.

HISTORY

The **aue** device driver first appeared in FreeBSD 4.0.

AUTHORS

The **aue** driver was written by Bill Paul <wpaul@ee.columbia.edu>.